universal application with various operating systems. The endpoint sees the adapter as a fully compatible interface with the network; and the network sees the adapter as a standard based endpoint.

SUMMARY OF XIE

Xie (US 2004/0059942 A1) is merely a firewall with VolP features. Outgoing packets are detected and modified in header data and content data to enable bi-directional communication. Xie (-'942) changes the source IP address and the port number and the corresponding VolP packet. Xie has a provision for multiple incoming packets, which includes a "VolP ports versus internal address table".

(Ex Para 7) REJECTION 35 USC 102(e)
        Claims 1-20 - XIE

The above Claims 1-20, (all of the claims in the application) stand rejected under 35 USC 102(e) as being anticipated by Xie (-'942). The Examiner correctly notes that Xie (-'942) teaches the distribution of information packets containing headers over a communication network. However, Applicants submit that the above claims are patentable over the reference cited, and presents the following distinctions discussed below under separate headings.

Independent Claim 1

Paragraph 0020 of Xie (-'942) does not disclose Applicants' claimed method of distributing information packets. There is no mention in paragraph 0020 of the following features of the claimed method:
    multiple send endpoint ports,
    a send endpoint unit,
    a standard based send firewall adapter,
    at least one firewall,
    a standard based receive firewall adapter,
    multiple receive endpoint ports, or
    a receive endpoint unit.

Xie's paragraph 0020 concerns the value of gateway security.

Independent Claim 1 - Opening Network Step

Paragraph 0022 of Xie (-'942) does not disclose opening a network tunnel connection which traverses a firewall. The disclosure in Xie's paragraph 0022 concerns the steps of detecting an outgoing packet and changing header data.

Independent Claim 1 - Multiplexing Step

Paragraph 0034 of Xie (-'942) does not disclose multiplexing at the send endpoint ports to form a single stream of multiplexed packets. The disclosure in Xie's paragraph 0034 (Example 1) concerns H323 messages and IP/Port mapping.

Independent Claim 1 - Demultiplexing Step

Paragraph 0040 of Xie (-'942) does not disclose demultiplexing at the receive endpoint ports to form multiple streams of demultiplexed packets. The disclosure in Xie's paragraph 0040 concerns gatekeepers across a WAN.

Independent Claim 1 - Determining Step

Applicants' determining step (lines 8-10) was not addressed in the Office Action.

Independent Claim 1 - Sending Step

Applicants' sending step (lines 18-20) was not addressed in the Office Action.

Dependent Claim 2 - Header Protocol

Paragraph 0021 of Xie (-'942) does not disclose "providing a header protocol from a stack of protocols". Xie merely discloses changing data in the header to enable bi-directional communication.

Dependent Claim 3 - Altering Protocol Stack

Paragraph 0004 of Xie (-'942) does not disclose "altering the protocol stack by adding or deleting specific protocols". Xie's paragraph 0004 merely mentions popular "signaling protocols such as MGCP, SIP, and H323".

Dependent Claim 4 - One Firewall

Xie (-'942) does disclose "a single fire wall" in paragraph 0004.

Dependent Claim 5 - Two Firewalls

Xie (-'942) does not disclose "at least two fire walls" in paragraph 0004. Xie's paragraph 0004 discloses a single firewall (see line 5 of paragraph 0004).

Dependent Claim 6 - Network Protocol

Paragraph 0020 of Xie (-'942) does not disclose "a network protocol for distributing information packets". Xie's paragraph 0020 merely discusses "a network protection gateway (NPG) to manage packets transmission".

Dependent Claim 7 - TCP

Paragraph 0030 of Xie (-'942) does not disclose a TCP network protocol. The disclosure in Xie's paragraph 0030 is limited to "a bi-directional VolP protocol".

Dependent Claim 8 - Voice/Video Communication

Paragraph 0020 of Xie (-'942) does not disclose communication "carried by voice and/or video". The disclosure in Xie's paragraph 0020 is directed toward a network protection gateway.

Dependent Claim 9 - Internet

Paragraph 0020 of Xie (-'942) does not disclose an internet communication network. The disclosure in Xie's paragraph 0020 is limited to a general network.

Dependent Claim 10 - WAN

Xie (-'942) does disclose "wide area network" or WAN
in paragraph 0040.

Dependent Claim 11 - LAN

Xie (-'942) does disclose "local area network" or
LAN in paragraph 0040.

Dependent Claim 12 - Port Selection

Paragraph 0021 of Xie (-'942) does not disclose that
the port "is selected by the send firewall adapter".
Xie's paragraph 0021 does discusses changing port numbers
and a plurality of ports; but does not reveal how the
ports are selected.

Dependent Claim 13 - Range of Ports

Paragraph 0024 of Xie (-'942) does not disclose that
the firewall port "is selected from a range of firewall
ports". The disclosure in Xie's paragraph 0024 concerns
Figure 1 and is limited to a firewall installed between
internal and external networks.

Dependent Claim 14 - Predetermined Port

Paragraph 0054 of Xie (-'942) does not disclose that
the firewall port is predetermined. The disclosure in
Xie's paragraph 0054 concerns the initial stage of the
call set-up process (see Figure 5B).

Dependent Claim 15 - Default Port

Paragraph 0034 of Xie (-'942) does not disclose that
the predetermined firewall port is a default port. The
disclosure in Xie's paragraph 0034 is limited to the
standard port.

Dependent Claim 16 - HTTP

Paragraph 0054 of Xie (-'942) does not disclose that
the predetermined default firewall port is the HTTP

network port. The port disclosure in Xie's paragraph 0054 is limited to "UDP protocol and port 1719".

Dependent Claim 17 - Assigning Channels

Paragraph 0021 of Xie (-'942) does not disclose Applicants' step of opening logical communication channels by assigning channel numbers in the header of the packets, corresponding to the multiple send endpoint ports. The disclosure in Xie's paragraph 0021 generally teaches changing the port number in the header.

Dependent Claim 18 - Assigning Ports

Paragraph 0021 of Xie (-'942) does not disclose Applicants' step of opening multiple receive endpoint ports by assigning port numbers in the header of the packets. The disclosure in Xie's paragraph 0021 generally teaches changing the port number in the header.

Independent Claim 19 - Apparatus

Independent Claim 19 is directed to apparatus for performing the method of Claim 1, and therefore overcomes Xie (-'942) along a similar rationale.

Independent Claim 20 - Computer Media

Independent Claim 20 is directed to computer readable medium of method of Claim 1, and therefore overcomes Xie (-'942) along a similar rationale.

PARAGRAPH CITES

The paragraph cites in the above treatment of Claims 1-20, were taken from United States Patent Application Publication number US 2004/0559942 A1, published Mar. 25, 2004. This publication accompanied the Examiner's First Office Action (title page enclosed - pink).
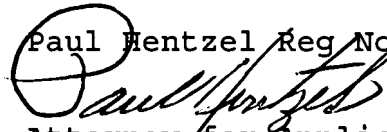
CONCLUSION

In view of the foregoing, Applicants urge the Examiner to withdraw the 102(e) Xie (-'942) rejection and allow applicants' claims 1-20.

enc.   Respectfully Submitted
title sheet Xie - pink
Return Postcard

                                        Paul Hentzel Reg No 24,602

                                        [signature]

                                        Attorney for Applicant
                                        August 23, 2007
                                        (650) 326-8254

US 20040059942A1

(54) **FIREWALL INTERFACE CONFIGURATION AND PROCESSES TO ENABLE BI-DIRECTIONAL VOIP TRAVERSAL COMMUNICATIONS**

(75) Inventor: **Michael Xie**, Palo Alto, CA (US)

Correspondence Address:
Bo-In Lin
13445 Mandoli Drive
Los Altos Hills, CA 94022 (US)

(57) **ABSTRACT**

A firewall for interfaced between an internal and an external networks. The firewall includes a VoIP processor for detecting an outgoing VoIP packet sent from the internal network for changing data in a header of the VoIP packet and also changing data contents in the VoIP packet corresponding to data changed in the header to enable a bi-directional VoIP communication. In a preferred embodiment, the VoIP processor changes a source IP address and a port number in the header of the VoIP packet and also changes the data contents in the VoIP packet corresponding to the source IP address and the port number changed in the header to enable a bi-directional VoIP communication. In another preferred embodiment, the firewall further includes an external VoIP interface comprising a plurality of VoIP ports for receiving multiple incoming VoIP packets each designated with one of the VoIP ports. And, the VoIP processor further includes a VoIP port versus internal address table for identifying an internal address in the internal network for directing each of the incoming VoIP packets to the internal address identified.